



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,388	06/19/2001	Xi Yuan Hua	J6662(C)	3575

201 7590 01/11/2005

UNILEVER INTELLECTUAL PROPERTY GROUP  
700 SYLVAN AVENUE,  
BLDG C2 SOUTH  
ENGLEWOOD CLIFFS, NJ 07632-3100

EXAMINER

SHARAREH, SHAHNAM J

ART UNIT	PAPER NUMBER
----------	--------------

1617

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/884,388

Applicant(s)

HUA ET AL.

Examiner

Shahnam Sharareh

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 1617

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 6, 2004 has been entered.

Claims 1-9 are pending

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kasting et al US Patent 5,434,144.

The instant claims are directed to microemulsion compositions comprising (a) an oil comprising squalene or squalane which is capable of dissolving at least 20% triolein and having spreadability factor  $S^r$  of greater than 0.3 to less than 2.5, (b) a surfactant, (c) 1-10% C<sub>2</sub>-C<sub>10</sub> alcohol, (d) optionally water soluble polyalcohols or humectants and (e) water. Claim 9 is directed to methods of applying the claimed composition.

Kasting provides for topical microemulsions comprising 9-15% squalane, 25-50% silicone oil, 15-30% polysorbatan surfactant which is a nonionic surfactant, 7-20% water

Art Unit: 1617

or other suitable carriers such as ethanol or isopropanol, butandiol which fall within the scope of C<sub>2</sub>-C<sub>10</sub> alcohols (see col 6, lines 10-19; col 7, lines 61-col 8, line 2; examples 12-19; col 9, lines 40-65). Kasting also uses various therapeutic and aesthetic compounds such as perfumes, antiinflammatories, retinoids or antioxidants that meet the limitations of the instant sensory agents. (see col 9-14). The instantly claimed compositions do not exclude any elements of Kasting's compositions.

Further, since the oil component of the instant claims is limited to Squalane or Squalene as the only component, its functionality of dissolving at least 20% triolein and providing spreadability factor of at least 0.3 is viewed to be an inherent property of Squalane or Squalene. Thus, Kasting's compositions meet all the limitations of the instant claims.

The instant claims 9 is only directed to a single step of administering the claimed composition. Kasting also teaches methods of topical administration to skin which meets the limitations of the instant claim 9. (see col 16, lines 43-50, col 19, lines 1-50). Thus, Kasting anticipates all limitations of the instant claims.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forester et al US Patent 5,980,874 in view of Bauer US Patent 6,426,078.

Forester discloses microemulsions comprising a fatty component such as octyl dodecanol in amounts of about 6.5% wt, a non-ionic surfactant in amounts of about 20% wt comprising alkyl glycoside with or without ethylene oxide products of fatty alcohols, co-emulsifier including linear or branched C<sub>8</sub>-C<sub>10</sub> fatty alcohols, ethanol or isopropanol in amounts of about 2%, a thickening agent or perfume oil that meets the limitations of instant sensory agents, and a humectants such as propylene glycol (see abstract; col 3,

Art Unit: 1617

lines 5-22 and 56-66; col 4, lines 24-67; col 5, lines 32-36; examples 1-5; and claims 1-2, 9-14).

The amounts of co-surfactants used by Forester meet the limitations of the instantly claimed cosurfactant because Forester claims his ratio of nonionic emulsifier/coemulsifier as 2:1 to 15:1 (see Forester's claims 14). Since Forester claims up to 30% nonionic surfactant. The oils used by Forester are the same as those instantly claimed, because the instant specification at page 11 enumerates octyl dodecanol, coco caprylate/caprates and isopropyl myristate as such oils.

Forester further states that other nonionic surfactants such as addition products of ethylene oxide with fatty alcohols containing 16 to 22 carbon atoms or with partial esters of polyols containing 3 to 6 carbon atoms may be used as the nonionic surfactant because they provide the same function as other nonionic surfactants (see col 3, lines 57-65). Polyoxyalkylenated alcohols encompass the addition products of ethylene oxide with fatty alcohols containing 16 to 22 carbon atoms or with partial esters of polyols containing 3 to 6 carbon atoms or the term polyol ethers. Thus, Forester provides for use of such surfactants. Forester only fails to explicitly use of Squalene or Squalane or polyoxyalkylenated alcohols as the nonionic surfactant in an exemplified product.

Bauer is used to show that for purposes of formulating microemulsions Squalane and Squalene are art recognized functional equivalents to the oils used by Forester (see col 2, lines 5-11). Since the oil component of the instant claims is limited to Squalane or Squalene as the only component, its functionality of dissolving at least 20% triolein and providing spreadability factor of at least 0.3 is viewed to be an inherent property of

Art Unit: 1617

Squalane or Squalene. Thus, such functional limitation in the instant composition claims is met.

Accordingly, absent showing of unexpected results it would have been obvious to one of ordinary skill in the art at the time of invention to substitute the oil components of Forester with other functional art equivalents such as Squalene or Squalane of Bauer because one of ordinary skill in the art would have had a reasonable expectation of success in observing similar functional properties when replacing the oils of Bauer with those of Forester.

Moreover, as recognized by Forester, polyoxyalkylenated alcohols are functional equivalent surfactants to alkyl glycosides. Thus, substituting polyoxyalkylenated alcohols in place of alkyl glycosides of Forester would have been obvious and well within the level of ordinary skill in the art.

Thus even though Forester provides the use of C<sub>8</sub>-C<sub>10</sub> as suitable cosurfactant in 0.2 to 1.2 parts by weight in the oil phase in ratios of 1:2 to 1:10 with the emulsifier, he fails to explicitly teach that the use of C<sub>2</sub>-C<sub>10</sub> in amounts of about 3 to 10% of his microemulsion.

Nevertheless, absence of showing unexpected results, it would have been obvious to one of ordinary skill in the art at the time of invention to optimize the amount of such fatty alcohols coemulsifiers to improve stability of the microemulsions of Forester.


Art Unit: 1617

***C nclusion***

No claims are allowed. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahnam Sharareh whose telephone number is 703-306-5400. The examiner can normally be reached on 8:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, PhD can be reached on 703-308-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1123.

  
**SREENI PADMANABHAN**  
**SUPERVISORY PATENT EXAMINER**